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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,558	06/09/2005	Alfred Bernhard	SB-521	4338
24131	7590	05/18/2006	EXAMINER	
LERNER GREENBERG STEMER LLP			MAI, NGOCLAN THI	
P O BOX 2480			ART UNIT	
HOLLYWOOD, FL 33022-2480			PAPER NUMBER	

1742

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,558	<b>Applicant(s)</b> BERNHARD ET AL.	
	<b>Examiner</b> Ngoclan T. Mai	<b>Art Unit</b> 1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 9, 10 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 11 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/2/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ederyd et al.

Ederyd et al disclose a sintered body for tools such as drills, microdrills and routers consisting of WC having grain size less than 1 micron and a cobalt content of 3-20 wt%, col. 5, lines 15-18, col. 5, lines 15-19. While Ederyd et al do not specifically teach cobalt content from 13 to 23% by weight as recited in claim 9 or 13-17% by weight as recited in claim 10, however since Ederyd et al teach sintered body with constituents whose wt% ranges overlap those recited by the claims; such overlapping range renders applicant's composition prima facie obvious despite difference in non-overlapping areas, see In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Furthermore, in view of the overlapping in composition, the composition taught by the prior art would be expected to possess the same properties of applicant's claimed resistant to wear and to torsional loads. See In re Best, 195 USPQ 430. To distinguish over prior art, applicant needs to demonstrate (e.g. by comparative test data) that

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the more narrowly claimed ranges for the alloying constituents are somehow critical and productive of new and unexpected results. As for the limitation of tungsten carbide has a mean grain size in the range of 0.7 to 0.9 micron, since Ederyd et al teach tungsten carbide grain size can be less than 1 micron, it would have been obvious to one of ordinary skill in the art to select any portion of range, including the claimed range, from the broader range disclosed by the reference because the reference finds that the prior art tungsten carbide grain size in the entire disclosed range has a suitable utility. --- Note: Even if a reference teaches a preferred range within a broader range, it still does not "teach away" from the claimed invention. See MPEP 2123.

4. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siracki et al. (GP 2,273,301).

Siracki et al disclose a cemented carbide insert consisting of WC having grain size less than 1 micron cemented with Co, Ni or Fe of less than 16 wt%, see abstract. While Siracki et al do not specifically teach cobalt content from 13 to 23% by weight as recited in claim 9 or 13-17% by weight as recited in claim 10, however since Siracki et al teach hard metal body with constituents whose wt% ranges overlap those recited by the claims; such overlapping range renders applicant's composition prima facie obvious despite difference in non-overlapping areas, see In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Furthermore, in view of the overlapping in composition, the composition taught by the prior art would be expected to possess the same properties of applicant's claimed resistant to wear and to torsional loads. See In re Best, 195 USPQ 430. To distinguish over prior art, applicant needs to demonstrate (e.g. by comparative test data) that the more narrowly claimed ranges for the alloying constituents are somehow critical and productive of new and unexpected results. As for the limitation of tungsten carbide has a mean grain size in the range of 0.7 to 0.9 micron, since Siracki et al teach tungsten carbide grain size can be less than 1 micron, it would have been obvious to one of ordinary skill in the art to select any portion of range, including the claimed range, from the broader range disclosed by the reference because the reference finds that the prior art tungsten carbide grain

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size in the entire disclosed range has a suitable utility. --- Note: Even if a reference teaches a preferred range within a broader range, it still does not "teach away" from the claimed invention. See MPEP 2123.

5. Claims 9-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (U.S. Patent No. 6,790,252).

Smith et al disclose an article made of tungsten carbide-cobalt alloy by injection molding polygonal shape powder comprising WC and 15 to 25% by weight Co, col. 7, lines 11-38.

Smith et al teach the polygonal WC powder used has particle size less than 15 microns, preferably 2 to 6 microns.

Smith et al also teach submicron particles having mean particle size of 0.1 micron have been used, col. 6, line 66 to col. 7, line 3.

Smith et al further teach the composition and particle size are vary depending on the application to which the die, i.e., alloy will be put.

Since Smith et al teach the hard metal alloy with constituents whose wt% ranges overlap those recited by the claims; such overlapping range renders applicant's composition prima facie obvious despite difference in non-overlapping areas, see *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Furthermore, in view of the overlapping in composition, the composition taught by the prior art would be expected to possess the same properties of applicant's claimed resistant to wear and to torsional loads See *In re Best*, 195 USPQ 430. To distinguish over prior art, applicant needs to demonstrate (e.g. by comparative test data) that the more narrowly claimed ranges for the alloying constituents are somehow critical and productive of new and unexpected results.

As for claim 10, the difference between the claim and Smith et al is that Smith et al do not specifically teach employing tungsten carbide grain in a range of 0.7 to 0.9 microns. However since Smith et al teach the polygonal WC powder used has particle size less than 15 microns, preferably 2 to 6 microns and that submicron particles having mean particle size of 0.1 micron have been used, col. 6, line

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66 to col. 7, line 3, it would have been obvious to one of ordinary skill in the art to select any portion of range, including the claimed range, from the broader range disclosed by the reference because the reference finds that the prior art tungsten carbide grain size in the entire disclosed range has a suitable utility. --- Note: Even if a reference teaches a preferred range within a broader range, it still does not "teach away" from the claimed invention. See MPEP 2123.

As for claim 12-14, Smith et al teach the alloy is for used in fastener industry to form body such as a screw, nail, rivet or other fastener and tools used in the fastener industry, col. 7, lines 11-22. Based on this teaching, it have been obvious to one of ordinary skill in the art at the time the invention was made to form tool for used in fasten screw such as screw driver.

6. Claims 11 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


7. Claim 16 is allowable because none of the prior art found disclosed the claimed screw bit having the plurality of parallel grooves formed therein as an angle and direction as recited by the claim.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 9:30-6:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ngoclan T. Mai  
Primary Examiner  
Art Unit 1742

n.m.